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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,456	07/25/2003	Fertac Bilge	P1396 US	3417
28390	7590	08/26/2005	EXAMINER	
MEDTRONIC VASCULAR, INC. IP LEGAL DEPARTMENT 3576 UNOCAL PLACE SANTA ROSA, CA 95403			PRONE, CHRISTOPHER D	
			ART UNIT	PAPER NUMBER
			3738	

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/627,456

Applicant(s)

BILGE, FERTAC

Examiner

Christopher D Prone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
4a) Of the above claim(s) 14-16 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-13 and 17-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 5,554,181 Das.

In reference to claims 1 and 11, Das discloses the same invention being a catheter tip retention device comprising: a catheter tip referenced as elements 80 and 81 and a retaining ring constructed of a shape memory material referenced as element 101 shown in figures 1-17 of Das and described in column 3 on lines 61-65.

In reference to claim 2, Das discloses the same invention wherein the ring comprises an alloy of nickel and titanium described in column 3 on lines 61-65.

In reference to claim 3, Das discloses the same invention wherein it is inherent that the retaining ring is in an austenitic phase in the first configuration.

In reference to claim 4, Das discloses the same invention wherein it is inherent that the retaining ring is in a temperature induced martensitic phase in the second configuration.

In reference to claim 5, Das discloses the same invention wherein it is inherent that the retaining ring is in a stress induced martensitic phase in the second configuration.

In reference to claim 6, Das discloses the same invention wherein it is inherent that the shape memory alloy has a phase transformation temperature of below about 68 degrees Fahrenheit.

In reference to claim 7, Das discloses the same invention wherein the catheter has an end shown in figures 1-17 of Das.

In reference to claim 8, Das discloses the same invention wherein the end of the catheter comprises an inner member of a catheter referenced as element 84 of Das.

In reference to claim 9, Das discloses the same invention wherein the ring causes an interference fit between the catheter tip and the end of the catheter shown in figures 1-17 of Das.

In reference to claim 10, Das discloses the same invention wherein the catheters tip comprises a slot referenced as element 82 of Das, in the outer circumference of the catheter tip configured to receive the ring.

In reference to claim 12, Das discloses the same invention wherein it is inherent that the shape memory means is temperature set to the first configuration.

In reference to claim 13, Das discloses the same invention wherein it is inherent that the shape memory means comprises a spring means for causing the retaining means to return to the first set configuration.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 11, 17, and 18 are rejected under 35 U.S.C. 103 as being unpatentable over United States Patent 6,674,014 Tillander in view of United States Patent 5,554,181 Das.

Tillander discloses the invention substantially as claimed being a catheter tip retention device comprising a tip (4) and a retaining ring comprising element (5) that puts an inward radial force against the catheter tip. However, Tillander does not disclose that the band is made of memory metal.

Das teaches the use of metal bands comprising memory metals in the same field of endeavor for the purpose of providing a compressed band that expands to a desired shape after insertion into the body.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the memory metal of Das with the retaining ring of Tillander in order to provide a device that will maintain its shape prior to insertion, wherein after insertion the bands will expand allowing the device to flex. This obvious modification would increase operator's control over the catheter prior to insertion.

Claims 19-22 are rejected under 35 U.S.C. 103 as being unpatentable over United States Patent 5,782,740 Schneiderman

Schneiderman discloses the invention substantially as claimed being a catheter tip retention device comprising a tip (34) and a retaining ring comprising element (33) that puts an inward radial force against the catheter tip onto the catheter (11). However, Schneiderman does not disclose what the ring is made from.

Schneiderman teaches the use of memory metals for many components in the same field of endeavor for the purpose of providing reinforcement (8:27-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made the rings out of the memory metal Nickel-Titanium in order to provide a stronger biocompatible material for implantation.

### ***Response to Arguments***

Applicant's arguments filed 6/20/05 have been fully considered but they are not persuasive. The applicant argues that the device disclosed by Das is in no way a retention device, that it does not couple the tip to the catheter, and that it lacks a means for coupling the tip to the catheter.

As described above the stent retainer discloses all the structurally claimed elements. The stent of Das is made of a memory material (3:61-62), which can be enlarged or shrunk to conform to and retain the catheter tip with changes in temperature (2:20-29). It is therefore fully capable of being a retention device on the catheter tip.

The applicant also argues that the stent is not a retention device because the sheath holds it in a compressed state and that upon removal of the sheath the stent will automatically expand. The stent being made of shape memory does not rely upon the sheath for resistance to expansion. The memory metal will not expand until it is heated up to a preset temperature regardless of the presence of the sheath (8:9-15).

In regards to the applicants arguments over claims 17-22 they are addressed above with a new art rejection necessitated by the new amendments.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D. Prone whose telephone number is (571) 272-6085. The examiner can normally be reached on Monday Through Fri 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher D Prone  
Examiner  
Art Unit 3738

  
CDP

  
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